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ABSTRACT

The purpose of the study was to assess non-intellective correlates of achievement in a lower-class, all black, urban elementary school. These students were compared with a University school population which was different in many dimensions. There were residual similarities relative to the general role of the elementary school student. In neither case were the attributes of the student role consistent with the achievement goals of the schools. The school in today's society seems to be uniformly successful in teaching self-abnegation, dependency, deference, endurance, and passivity; and far less successful in training values and behaviors instrumental to the attainment of high levels of accomplishment. (Author/DM)

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ACHIEVEMENT IN TWO SCHOOL CULTURES

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ACHIEVEMENT IN TWO CULTURES: A multivariate study of non-intellective correlates of achievement

Short Abstract

The purpose of the wider inquiry of which this comparative study was a part was to assess non-intellective correlates of achievement in a special social context: a lower-class, all Black, urban elementary school. (AERA, 1970)

The variables on which data were collected throughout the study were categorized as: background or descriptive variables; general psychological variables; specifically school-related variables; and the performance variable, achievement in reading. Data were collected from a Student Interview Schedule administered to the children orally and from school records.

Nonplussed by our findings about studenthood and performance in a ghetto school, we began to wonder just how environmentally specific or how general to the institutionalized role of student in elementary school our observations actually were. Although limited by time and resources at this stage of the inquiry, and cognizant of the many pitfalls awaiting the researcher in comparing this school sample to any other, we nevertheless decided to at least take an initial look at data gathered on the same variables in quite a different school setting.

The University School population we sampled is different along many dimensions from that of Southside, none of which could be adequately controlled within the design of this study. It was, however, not so much the differences between the populations, most of which we shall describe in terms of background variables, as the residual similarities which we shall speculate belong to the general role of elementary school student, which interest us here.

Results indicate that although attributes of achievement vary with the school context, attributes of the student role are strikingly similar across schools. And in neither case are attributes of the student role consistently supportive of the achievement goals of schools.

Such findings might lead us to examine, au fond, our assumptions about the nature of the student role and its relation to achievement. As a socializing institution, the school in our society seems to be uniformly successful in the teaching (or at least reinforcing) of self-abnegation, dependency, deference, endurance, and passivity; far less successful in teaching values and behaviors instrumental to attaining uniformly high levels of accomplishment from its clientele.

This research was in part supported by Research Grant USPHS 1-R11-M-H-02010 to Professor Herbert A. Thelen, Department of Education, University of Chicago.

INTRODUCTION

The purpose of the wider inquiry of which this comparative study was a part was to assess non-intellective correlates of achievement in a special social context: a lower-class all Black urban elementary school. (Reported AERA, 1970)

The variables on which data were collected throughout the study were categorized as: background or descriptive variables; general psychological variables; specifically school-related variables; and the performance variable, achievement in reading (see accompanying tables). Data were collected from a Student Interview Schedule administered to the children orally and from school records.

Viewing achievement on the continuum of all scores available for the Metropolitan Achievement Tests in reading for fourth and fifth graders, we regressed our psychological and school-related variables on it. Then, having seen which of our variables were significantly related to achievement in this lower class population, we used factor analysis to examine shared variances that describe what we refer to in this study as typical strategies for responding to the demands or expectations of the school situation (coping and defending strategies).

Comparing the results of the two analyses, we concluded that if our factors define what the majority of the children at Southside believe to be the best strategies for dealing with the school environment, then their strategies and the achievement goals of schooling are certainly at odds. We had begun our reseach with the hypothesis that there was some necessary relationship between socialization into the student role and the achievement goals of the schooling. We were unable to bear out the hypothesis on the basis of the Southside data. Rather, we ended by following two courses of analysis, the results of which seldom converged: the examination of responses to role expectations by students; the examination of correlates of achievement.

Nonplussed by our findings about studenthood and performance in a ghetto school, we began to wonder just how environmentally specific or how general to the institutionalized role of student-in-elementary-school our observations actually were. Although limited by time and resources at this stage of the inquiry, and cognizant of the many pitfalls awaiting the researcher in comparing this school population to any other, we nevertheless decided to at least take an initial look at data gathered in quite a different school population, a university laboratory school.

It was not our intention to come to any conclusions about the new question of what is role determined versus what is contextually influenced in studenthood. We hoped only to open this area of inquiry to the possibility of more intensive study in the future.

The University School sample we assessed is different along many dimensions from that of Southside, none of which could be adequately controlled within the design of this study. It was, however, not so much the differences between the populations, most of which we shall describe in terms of background variables, as the residual similarities which we shall speculate belong to the general role of elementary school student, which interest us here.

The subjects in the University sample, as those at Southside, were fourth and fifth graders; the data collection procedures were the same as those of the previous study; and the Metropolitan achievement scores in reading were available for all subjects. The same statistical programs were used on the comparative University data: correlation, regression, and factor analysis. In addition, two-tailed t-tests were used to identify significant differences between the Southside and University groups on individual psychological, school-related, and background variables.

THE UNIVERSITY SCHOOL FINDINGS

Background

The subjects in this study were 45 nine-to-eleven-year-old boys and girls from two classrooms in University Elementary School. Classes in this school are not grouped on any basis but are formed randomly with approximately equal numbers of boys and girls. Therefore, any cross section of observations taken is representative of the whole. This sample is approximately one-fourth of the entire age group. Both Metropolitan achievement and IQ data were available for all the children represented in the study.

The mean reading score for the entire age group taking the Metropolitan Achievement tests in reading during 1967 and 1968 was 5.6. The mean IQ score (based on individual intelligence tests, usually the WISC) was 125. The sample means were, in fact, the same.

In the University sample, 7 of the 45 children were Black; 38 were White. There were 24 boys and 21 girls. All of the children except for one girl came from two-parent families. Seventy-three percent or almost 3/4's of the children reported that they came from families of two or three children; only 7% reported 5 or more children in the family, 2 said they are only children.

Eighteen of the children come from homes in which both the mother and father work; twenty-six come from homes in which the father works and the mother keeps house; one comes from a one-parent family in which the mother is a professor. Parents are predominantly professional - professors, researchers, doctors, lawyers, etc.

In summary, of the 45 middle-class University School children in this sample, approximately 17% were Black, 83% White. There were three more boys than girls and all but one of the children came from intact homes of small families. Overwhelmingly academic in their background orientations, all the children had above average intelligence. As deprived as was our Southside sample in its background, so abundant was our University group in its background.

REGRESSION ANALYSIS

Viewing achievement relatively in this population as in the previous Southside population, we took the continuum of Metropolitan reading achievement scores of our sample and regressed the background, psychological, and school-related variables on it. The following combination of independent variables produced a multiple R of .73 significant at the .01 level with 11/33 degrees of freedom:

Concept of ability (school-related)
School work should be fun (school-related)
Pairing (psychological)
Fight (psychological)
Sentiments toward school (school-related)
IQ (background)
Teacher should understand how students feel (school-related)
Number of children in family (background)
Autonomy (psychological)
Family structure (background)
Should always work hard in class (school-related)

Of this variable combination Self-concept of ability, the idea that "School should be fun most of the time," Fight, IQ, and the ideas that "It is good to help others except during tests," and that "You should always work hard in class" are positively related to achievement in the step-down analysis. However,

only Concept of ability, a school-related variable, the idea that "School work should be fun most of the time," also a school-related variable, and Fight, a psychological defense variable, are both positively and significantly (.05) related to achievement in the step-down analysis. Apparently in this school setting, it is the endowed child with academic self-confidence and positive, game-like feelings about school, who defends against classroom stresses and anxieties by fighting back who achieves most. Compare this to previously reported findings from Southside (AERA 1970) and you see that there, by contrast, it is the endowed child who interacts least with the school setting who achieves most. At University School it is contextual or school-related variables which lead the list of significant correlates of achievement. Background variables are not significant in this sample.

Factor Analysis

The same factor analytic procedures were followed with these data as in the previous study. Age, IQ and all psychological and school-related variables were entered. The first five factors of the nine rotated factor structure, accounting for 63% of the variance, are reported here.

Factor I (16%) is a bipolar factor describing opposing strategies: Flight or withdrawal from class group situations with accompanying feelings of Autonomy versus Endurance or stick-to-itiveness with accompanying high Pairing or peer interaction. As we saw in the regression analysis, Pairing is significantly negatively related to Achievement. Most children in this group, however, scored higher on Endurance and Pairing than on Flight and Autonomy. Autonomy, the only other variable to show any relation to Achievement in the multiple regression was positively but not significantly related.

Factor II (14%) is also a bipolar factor: Dominance, accompanied by high feelings or Control and high Concept of ability versus Deference and Endurance. The kind of child who chooses Deference and Endurance as the best strategy is most common in this school as at Southside.

These first two factors combined account for 30% of the variance within the University data, and are the most general factors. What the clusters describe in common, we believe, is the most accepted classroom value, "stick-to-itiveness" or Endurance. The differences they seem to point to are between social tactics of two types: Pairing, or seeking interaction with and support from classmates, versus Deference, or closer attention to the authority figure of the classroom, the teacher, and courting her support. Interestingly enough those highest on seeking association with peers will be lowest on withdrawal into the self, or Flight, and "doing their own thing" without regard for others (Autonomy), while those using Deference as a coping tactic in the classroom are most likely to be low on feelings of Control over the environment, Self-concept of ability, and Dominance, or attempts to lead others. Those high on Self-concept will probably be low on Deference. Most children score high on Deference; but it is Concept of ability which is significantly positively related to achievement in the regression.

Factor III (11%) loaded on background variables, Age versus IQ.

Factor IV (11%) is a cluster of school related variables and describes the coping style of the child who favors cooperation and sharing and who thinks school work should be fun - a pleasant, positive experience. It loaded on two classroom norms - "It is good to help others with school work," and "School work should be fun most of the time," and on another school-related variable, perception of the classroom as friendly, helpful, and cooperative.

Factor V (11%) is similar to Factor IV except that again we see a distinction between the student who views the classroom as a cooperative group with peers in important roles and the child who looks primarily to the teacher for support, help, and leadership. The bipolar loading was "It is good to ask the

teacher for help," - a classroom norm, versus Fight, a psychological defense variable. In this bipolar factor those high on Fight will be correspondingly low on teacher dependency. It is Fight, moreover, that is significantly positively related to achievement in the University regression analysis.

Two features are most striking about this factor analysis as it is interpreted in the light of the total data analysis. First, the factors tend to be very much alike in their essentials and do not seem to indicate any marked differences between groups or sexes. Secondly, there is a strong trend toward sociability in the classroom with about equal desire for interaction with teacher and peers. There also appears to be no widespread attempt to turn away from the classroom situation. Variables most strongly associated with achievement represent a concentration of school-related and psychological rather than background or outside factors. By contrast, in the Southside sample, psychological and background factors predominated throughout the analyses.

ACHIEVEMENT IN TWO SCHOOL CONTEXTS

Achievement Differences; Role Similarities

On the basis of our Southside and University samples we begin to see that attributes of achievement may vary with the school context but that attributes of the student role may perhaps be more generally defined.

The single most descriptive difference between achievers in the two school cultures we have observed may perhaps best be expressed colloquially: University School children are "in it"; Southside students are "out of it." It is possible to have fun in school, to master academic tasks, to feel positively about your ability as a student at University School because such things are concurrently possible and muturally supportive, not conflicting. It is even possible to admit that the nature of one's interactions are sometimes hostile and to fight back on occasion and still maintain one's chances of achievement. At Southside, however, only shunning all kinds of interactions as dangerous and threatening, only defending one's self against anxieties aroused in the course of classroom life by withdrawal from the situation through flight and fantasy, and trying to maintain the intelligence you start with, seems to enhance chances of achievement.

Psychologically, we define coping as an active, mastering mental process by which goals are reached, and defending as a reactive, protective mental process by which the self is salvaged. Though all of us must, at some times, engage both processes in the conduct of our lives, surely Southside children are being preponderantly trained for defense while University children learn the strategies of coping and mastery which lead to achievement. Because of the irrational, as well as real fears out of which the necessity for defending arises, the process is most often involuntary and outside of awareness: it is "unconsciously learned." Coping, by definition, is "conscious learning," the process by which individuals purposefully engage the environment with the intent of controlling or mastering it. It must be interactive; it may be learned. Since coping is learnable behavior, and since "the classroom group comes together for the purpose of learning," we know of no reason that it should not be taught at Southside as well as at University.

What <u>is</u> being learned, consciously and unconsciously, at both schools, is the student role. The most important analytic unit of an institution is a role. Roles are dynamic aspects of positions, offices, policies, or statutes within an institution. Roles thus define the behavior of their incumbents or actors (Linton, 1936). Roles, in turn, are defined by expectations. These expectations define for the actor what he should or should not do in his role. Roles are interdependent in that each role derives its meaning from related roles. For example, the role of teacher and the role of pupil are complementary:

one cannot be defined or implemented except in relation to the other. It is this quality of complementarity which fuses two or more roles into a coherent, interactive unit with its own style of acting that makes it possible for us to infer from our data on student responses to classroom expectations something of the nature of the expectations that are eliciting the responses.

Work, defined instrumentally in this study as learning by experience or reality orientation, and Achievement Motivation are clearly more dominant among our University pupils than among our Southside students. (See Tables 1 and 4.) Anxiety is lower, and feelings of Control higher. University students are also higher on belief in class participation and in perception of their classroom learning style as helpful, friendly, cooperative, and varied. They value getting along with others more highly than do Southside pupils.

The style of fulfilling the student role in both schools is, however, markedly similar (factor analysis). Scores on Deference, Endurance, and Dependency are consistently high, regardless of the population: scores on Dominance, Autonomy, Aggression, and Fight, consistently low. In most children aggressive achievement motives come into conflict with role expectations for the classroom, particularly in relation to the authority figure of the teacher. This conflict is resolved by the majority of student role incumbants in favor of the peace of complementarity: there is but one dominant, autonomous, aggressive, independent role in the classroom and that one is institutionally prescribed. It is left to the student role incumbant to be deferent, enduring, dependent, and to follow the leader.

Teachers are often heard to say in jest that they never really "learned" their subject until they started to teach it. But it is true. For age aside, those qualities most likely to lead to learning are ironically attached to the teacher's role, while those least likely to foster achievement are left to the student. Curiosity is a cutting edge; Freud long ago observed that the use of intellect as a tool is sublimated aggression, and that such directed aggression was necessary for learning. Yet few of our students felt free to admit to spoiling for a fight once in a while, or to harboring so vulgar a feeling as aggression. Among those of our University population who admitted to fight as a defense are the highest achievers; among those of our Southside children who admitted to feelings of aggression are the highest IQ's. Deference is seen to be consistently negatively related to achievement throughout our data. Such findings lead us to reexamine, au fond, our assumptions about the nature of the student role and its relation to achievement. As a socializing institution, the school seems to be uniformly successful in the lessons of self-abnegation, dependency, deference, endurance, and passivity; far less successful in attaining uniformly high levels of accomplishment from its clientele or in developing confident, active, independent students.

Summary

In this paper we have presented the data collected from our small sample of University elementary school students. We have seen that this group of students differs along many dimensions from those in our Southside study. However, on some of the role attributes of studenthood they are markedly similar. We have speculated that these similarities stem from the institutionalized structure of the classroom, particularly from the complementary nature of the student-teacher roles as they are now defined.

We noted also that in the course of our research it has become increasingly clear that our original hypothesis--that there is some necessary connection between student role performance and academic achievement--must be rejected. There seems rather to be an institutionally preferred or "right way to act" for students; and separately, sometimes conflictfully, a varying set of attributes of achievement.

We have indicated further our belief that coping skills and tactics by which mastery of the environment, including academic tasks, may be accomplished, is an interactive, outgoing, aggressive and dominating process which may be learned but which is apparently most often discouraged under present classroom conditions, especially at Southside. We suggest that perhaps some sharing with students of the attributes of the teacher's institutionally prescribed role is one possible way of maintaining complementarity through role sharing, rather than by rigid or fixed role definition.

APPENDIX

TABLE 1

VARIABLE MEANS FOR TOTAL FIFTH GRADE SOUTHSIDE AND UNIVERSITY SCHOOL SAMPLES

Psychological Variables	Southside		University		Difference[a]	
	Mean	Error	Mean	Error	Mean	Sig.
Achievement	5.62	.14	6.20	.21	.58	.05
Aggression	3.79	.19	3.44	.28	.35	NS
Autonomy	3.97	.15	4.76	.24	.79	.01
Deference	5.88	.15	5.76	.31	.12	NS
Dominance	3.72	.16	4.07	.30	.35	NS
Endurance	6.98	.16	5.78	.28	1.20	.01
Work	12.43	.20	15.13	.34	2.70	.01
Flight	7.20	.24	6.16	.36	.04	NS
Fight	8.19	.27	5.20	.31	2.99	.01
Dependency	12.45	.25	11.62	.34	.83	NS
Pairing	9.74	.18	10.89	.30	1.15	.01
Control	23.55	.20	26.73	.32	3.18	.01
Anxiety	19.74	.20	16.62	.35	3.12	.01
Self-satisfaction	5.26	.07	5.60	.12	.34	.01
School-Related Variables	**Mean**	**Error**	**Mean**	**Error**	**Mean**	**Sig.**
Sentiment toward school	16.55	.20	17.40	.21	.85	.01
Concept of ability	12.13	.27	12.84	.34	.71	NS
Class discussion	2.75	.05	2.91	.04	.16	NS
Seek teacher's help	2.79	.05	2.76	.08	.03	NS
Teacher affect	2.74	.06	2.71	.07	.03	NS
School fun	2.66	.06	2.49	.08	.17	NS
Cooperation	2.60	.07	2.67	.07	.07	NS
Hard work	2.88	.04	2.78	.07	.10	NS
Social standard	2.52	.07	2.78	.06	.26	.05
Learning style	9.38	.18	11.04	.19	1.66	.01

[a]Two-tailed t-tests used to determine level of significance.

REGRESSION ANALYSES

TABLE 2

REGRESSION RESULTS FOR UNIVERSITY SAMPLE

	F	Significance	DF
Multiple R = .73	3.35	.01	11/33
Independent Variables			
Concept of ability	6.29	.05	1/33
School work fun	4.63	.05	
Pairing	4.35	.05	
Fight	4.12	.05	
Sentiments toward school	3.30	NS	
IQ	2.60	NS	
Teacher affect	2.06	NS	
Number of children	1.79	NS	
Autonomy	1.61	NS	
Family structure	1.25	NS	
Always work hard	1.19	NS	

TABLE 3

REGRESSION RESULTS FOR SOUTHSIDE FIFTH GRADE POPULATION

Multiple R	F	Significance	DF
0.57	6.12	.01	8/103
Independent Variables			
IQ	19.91	.01	1/103
Age	6.77	.05	
Flight	6.40	.05	
Teacher affect	3.71	NS	
Deference (negative)	2.26	NS	
Class participation	2.14	NS	
Anxiety (negative)	1.82	NS	
Family structure	1.75	NS	

TABLE 4

HIERARCHY OF MOTIVES (EPPS)

	Fifth Grade Southside	University Sample
High	Endurance	Achievement
	Deference	Endurance
	Achievement	Deference
	Autonomy	Autonomy
	Dominance	Dominance
Low	Aggression	Aggression

HIERARCHY OF WORK-EMOTIONALITY (RGST)

	Fifth Grade Southside	University Sample
High	Dependency	Work
	Work	Dependency
	Pairing	Pairing
	Fight	Flight
Low	Flight	Fight

TABLE 5

NORM DATA: RANKING OF RESPONSES ON LEVEL OF CONCENSUS - UNIVERSITY

Rank Order of Items	Percent of Agreement
Good to take part in class discussion	91
Should always work hard in class and good to ask the teacher for help	80
Getting along with others important as school work	78
Teacher should try to find out feelings	71
Good to help others except during tests	67
School work should be fun most of the time	51

TABLE 6

NORM DATA: RANKING OF RESPONSES ON LEVEL OF CONCENSUS - SOUTHSIDE

Rank Order of Items	Percent of Agreement
You should always work hard in my class	90
The teacher should try to find out how students feel	84
It is good to ask the teacher for help	83
It is good to take part in class discussions	81
It is good to help others except during tests	78
School work should be fun most of the time	77
Getting along with others is as important as school work in my class	69